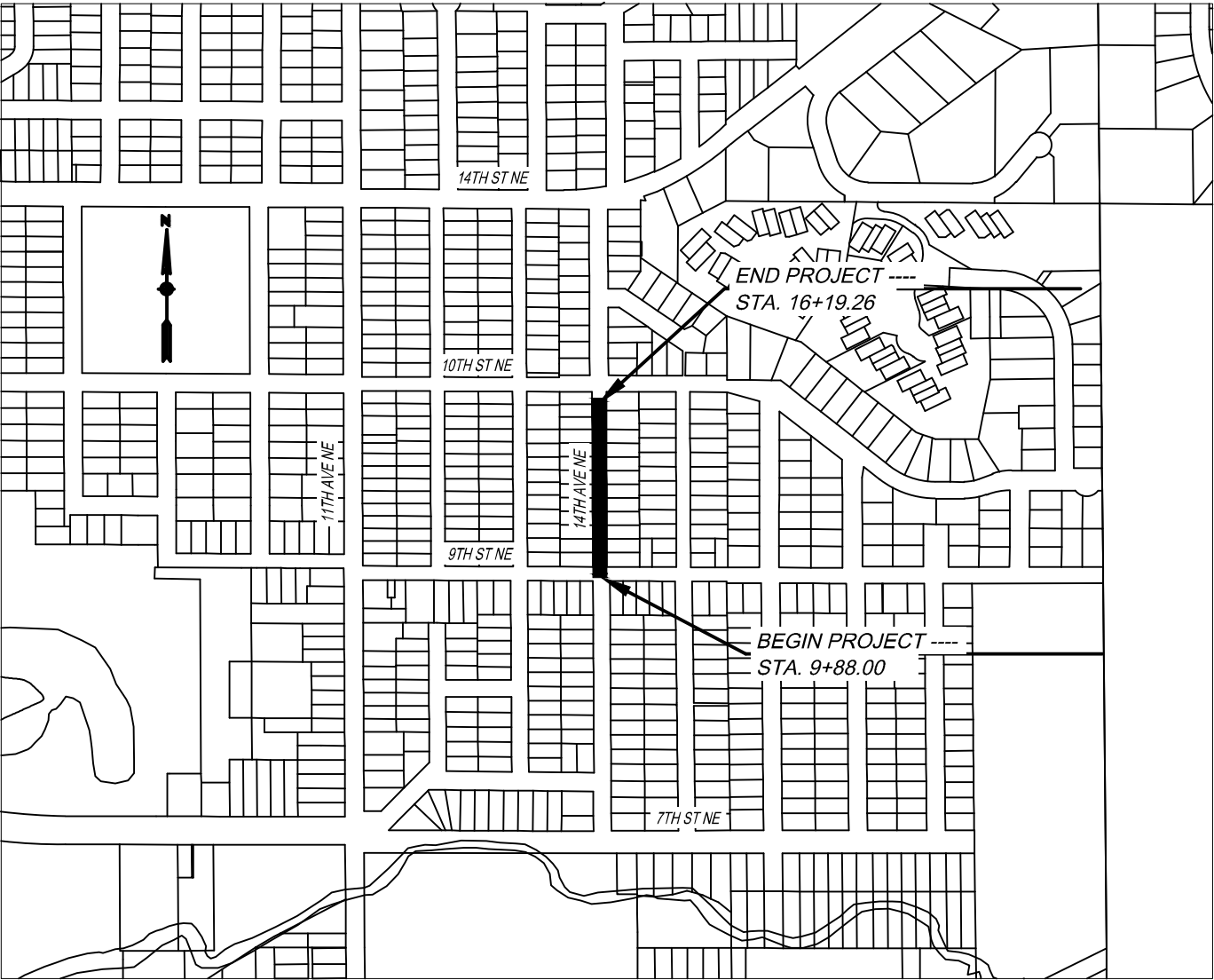




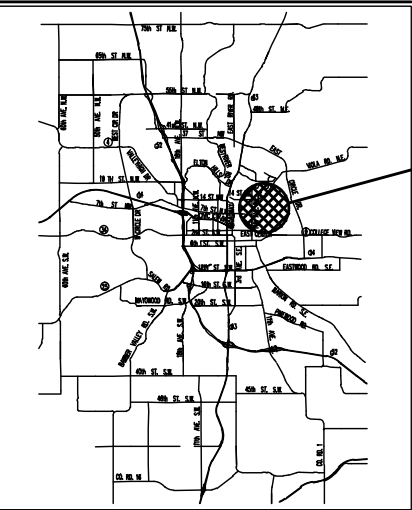
City of Rochester, Minnesota
Department Of Public Works

RECONSTRUCT SANITARY SEWER IN 14TH AVE NE
FROM 9TH ST TO 10TH ST NE

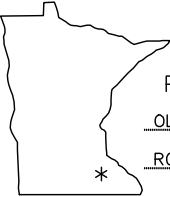
TOWNSHIP 107N RANGE 14W SECTION 36



City of Rochester and surrounding area

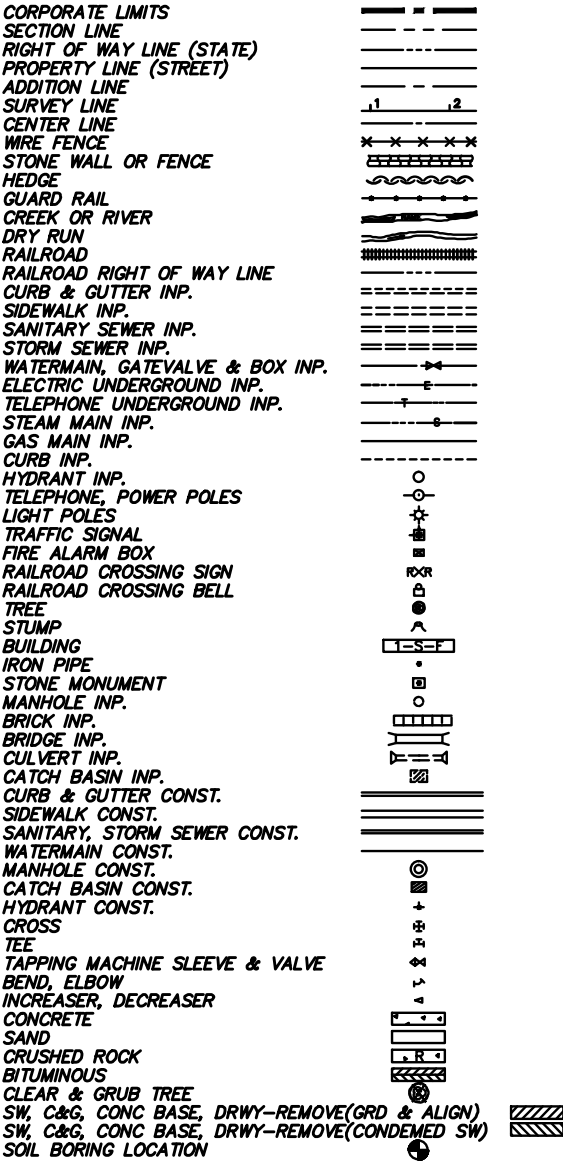


APPROXIMATE PROJECT LOCATION



PROJECT LOCATION
OLMSTED COUNTY
ROCHESTER DISTRICT

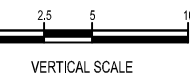
CONVENTIONAL SIGNS AND ABBREVIATIONS



- ACRE
ADJUST
AGGREGATE
APPROACH
BENCH MARK
BITUMINOUS
BRIDGE
BUILDING
CAST IRON PIPE
CATCH BASIN
CENTER LINE
CENTER TO CENTER
CLAY SEWER PIPE
CONCRETE
CONSTRUCT
CORNER
CORRUGATED METAL PIPE
CORRUGATED METAL PIPE ARCH
CRUSHED ROCK
CURB & GUTTER
DEFLECTION LEFT
DEFLECTION RIGHT
DEGREE OF CURVE
DELTA OR INTERSECTION ANGLE
DRIVE
DRIVEWAY
DROP INLET
DUCTILE IRON PIPE
EAST
ELEVATION
EMBANKMENT
ENTRANCE
EQUATION
ESTIMATE
EXCAVATION
EXPANSION
FLOW LINE
FOOT
FOUNDATION
FRAME
FURNISH AND INSTALL
GALLON
GATEVALVE
GRATE
HIGH WATER
HIGHWAY
HORIZONTAL
HYDRANT
INLET
INPLACE
INSTALL
INVERT
IRON PIPE
JUNCTION
LEFT
LENGTH OF CURVE
LINEAL
LOW WATER
MANHOLE
MINIMUM
MISCELLANEOUS
MONUMENT
NORTH
NORTH EAST
NORTH WEST
NUMBER
OUTLET
PERFORATED
POINT OF CURVATURE
POINT OF INTERSECTION
POINT OF TANGENCY
POINT ON TANGENT
RADIUS, ROCK, RANGE
RAILROAD
RAILWAY
REINFORCED
REINFORCED CONCRETE PIPE
RETURN
RIGHT
SANITARY
SEWER
SIDEWALK, SOUTH WEST
SOUTH
SOUTH EAST
SPECIFICATION, SPECIAL
STANDARD
STATION
STORM, STATE, STUCCO
STREET, STONE, STEEL
SUBDRAIN
SURFACE
TANGENT
TURNING POINT, TELEPHONE POLE
VARIABLE
VEHICULAR MEASURE
VERTICAL
VERTICAL CURVE
VETRIFIED
WEST, WATER

- A.
ADJ.
AGG.
APP.
B.M.
BIT.
BR.
BLDG.
C.I.P.
C.B.
C TO C
C.S.P.
CONC.
CONST.
COR.
C.M.P.
C.M.P.-A
CR. RK.
C & G
D L
D R
D
DR.
DRWY.
D.I.
D.I.P.
E.
EL.
EMB.
ENT.
EQ.
EST.
EXC.
EXP.
F.L.
FT.
FD'N.
FR.
F. & I.
GAL.
GV
GR.
H.W.
HWY.
HORIZ.
HYD.
INL.
INPL.
INST.
INV.
I. P.
JCT.
L.T.
L.
LIN.
L.W.
M.H.
MIN.
MISC.
MON.
N.
N.E.
N.W.
NO.
OUTL.
PERF.
P.C.
P.I.
P.T.
P.O.T.
R.
R.R.
REINF.
R.C.P.
RET.
RT.
SAN.
SEW.
S.W.
S.
S.E.
SPEC.
STD.
STA.
ST.
ST.
SD, SUBD
SURF.
TAN.
T.P.
VAR.
V.M.
VERT.
V.C.
VT.
W.

NOTE: SECTION NUMBERS READ FROM SOUTH



GOVERNING SPECIFICATIONS

State of Minnesota

The 2005 edition of the Minnesota Department of Transportation "Standard Specifications for Construction" shall govern except as modified by special provision.

City of Rochester, Minnesota

- General Requirements and Covenants for Public Works Construction, 2000 edition.
- S100 Standard Specifications for Sewer Construction.
- C150 Standard Specifications for Construction of Service Connections.
- W200 Standard Specifications for Watermain Construction.
- T100 Standard Specifications for Trench Excavation, Backfill & Surface Restoration
- C700 Standard Specifications for Sidewalk Construction.

UTILITY QUALITY LEVEL

The subsurface utility information in this plan is quality level D. This quality level was determined according to the guidelines of C/ASCE 38-2, entitled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data."

INDEX TO PLANS

Sheet Title	Sht. No.
TITLE SHEET	1
ESTIMATED QUANTITIES	2
TYPICAL SECTIONS	2
TABULATIONS	2
REMOVALS	3
EROSION CONTROL	4
UNDERGROUND	5-6
GRADING	7-8
INTERSECTION LAYOUTS	
TURF ESTABLISHMENT	
STRIPING	
SIGNAL PLANS	
CROSS SECTIONS	

This plan contains 8 Total sheets



City of Rochester, Minnesota
Department Of Public Works

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Fax: (507) 281-6216

Alvin L. Horstmann, Design Technician Date

Russell Keim, Design Engineer, I hereby certify that this plan was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Date: Registration Number 24667

Approved: Douglas Nelson, Assist. City of Rochester Engineer Date

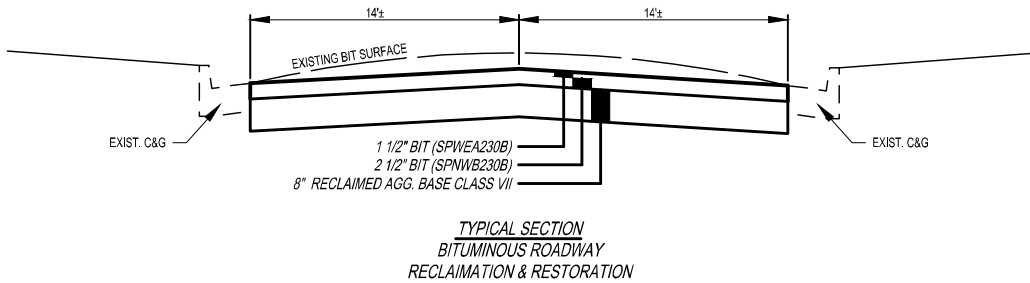
Approved: Richard Freese, City of Rochester Engineer Date

Project No 6314-1-09 J 7786

Sheet 1 of 8 Sheets

STATEMENT OF ESTIMATED QUANTITIES								
Notes	Table	Sheet No	SPECIFICATION REFERENCE NUMBER	ITEM DESCRIPTION	UNIT	PARTICIPATING	STORM SEWER	FINAL QUANTITIES
				STREET				
			2104.501	REMOVE CURB AND GUTTER	LF	20		20
			2331.604	BITUMINOUS PAVEMENT RECLAMATION	SQ YD	1978		1978
	D		2506.522	ADJUST FRAME & RING CASTING	EACH		3	3
			2531.501	CONCRETE CURB & GUTTER DESIGN B624	LF	20		20
			2575.505	SODDING TYPE MINERAL	S Y	5		5
1			S100.585	BITUMINOUS STREET RESTORATION	SQ YD	1978		1978
				SANITARY SEWER				
			2021.501	MOBILIZATION	LUMP SUM	1		1
			2104.501	REMOVE SEWER PIPE (SANITARY)	LIN FT	608		608
			2104.509	REMOVE MANHOLE	EACH	3		3
			2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	136		136
	F		2503.602	RECONNECT SANITARY SEWER SERVICE	EACH	23		23
			2503.602	CONNECT TO EXISTING MANHOLES (SAN)	EACH	4		4
			2563.601	TRAFFIC CONTROL	LUMP SUM	1		1
	I		2573.602	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH	2		2
	I		2573.602	INLET PROTECTION	EACH	2		2
			S100.501	TRENCH EXCAVATION FOR PIPE 24IN & UNDER 6FT TO 10FT DEEP	LIN FT	608		608
	H		S100.520	FURNISH & INSTALL 12IN ALTERNATE PIPE SEWER	LIN FT	608		608
	G		S100.545	CONSTRUCT STRUCTURE TYPE 3 6FT TO 10FT DEEP	STRUCTURE	3		3
			S100.578	FURNISH & INSTALL MANHOLE WATERPROOFING	EACH	3		3
1) BASIS OF QUANTITY: 439 CU YDS (CV) CLASS 7 AGGREGATE, 164 TON BIT WEARING, 327 TON BIT NON-WEARING 2) COMMON EXCAVATION INCLUDED IN TRENCH EXCAVATION								

SANITARY SEWER SERVICES (F)			
ADDRESS	STATION-LOCATION	SAN	RECONNECT
904 14TH AVE NE	10+90.1-CL	X	1
905 14TH AVE NE	10+87.2-CL	X	1
908 14TH AVE NE	11+37.0-CL	X	1
909 14TH AVE NE	11+33.9-CL	X	1
912 14TH AVE NE	11+86.5-CL	X	1
913 14TH AVE NE	11+83.7-CL	X	1
916 14TH AVE NE	12+30.2-CL	X	1
917 14TH AVE NE	12+27.3-CL	X	1
920 14TH AVE NE	12+79.9-CL	X	1
921 14TH AVE NE	13+07.2-CL	X	1
924 14TH AVE NE	13+30.0-CL	X	1
925 14TH AVE NE	13+26.8-CL	X	1
928 14TH AVE NE	13+82.1-CL	X	1
929 14TH AVE NE	13+79.7-CL	X	1
932 14TH AVE NE	14+25.7-CL	X	1
933 14TH AVE NE	14+23.0-CL	X	1
936 14TH AVE NE	14+72.5-CL	X	1
937 14TH AVE NE	14+69.8-CL	X	1
941 14TH AVE NE	15+24.3-CL	X	1
942 14TH AVE NE	15+24.3-CL	X	1
945 14TH AVE NE	15+66.5-CL	X	1
948 14TH AVE NE	16+00.4-CL	X	1
1314 10TH ST NE	16+01.9-CL	X	1
TOTALS			23
NOTES: RECONNECT INCLUDES WYES, SLEEVES, TEES, BENDS AND UP TO 8 FT. OF NEW SERVICE PIPE MATERIAL. SERVICE PIPE MATERIAL AND SIZE ARE UNKNOWN- VERIFY IN FIELD.			



CONTROL & TRAVERSE POINTS (B)				
NODE ID	LOCATION	DESCRIPTION	NORTHING	EASTING
1	10+24.69-323.31' RT	FORE SIGHT	172769.47	624248.81
2	10+25.34-25.27' RT	BLOCK CORNER	172768.92	623950.78
3	10+75.29-25.22' RT	PROPERTY CORNER	172818.87	623950.53
4	12+66.01-25.04' RT	PROPERTY CORNER	173009.60	623949.58
5	13+61.38-24.78' RT	PROPERTY CORNER	173104.98	623948.93
6	14+09.10-24.91' RT	PROPERTY CORNER	173152.70	623948.82
7	14+56.64-24.91' RT	PROPERTY CORNER	173200.24	623948.58
8	16+36.25-25.03' LT	PROPERTY CORNER	173379.57	623897.71
9	15+91.74-25.02' LT	PROPERTY CORNER	173335.09	623897.97
10	14+09.22-24.96' LT	PROPERTY CORNER	173152.57	623898.95
11	15+69.57-24.97' RT	PROPERTY CORNER	173313.17	623948.07
12	16+35.38-25.21' RT	PROPERTY CORNER	173379.00	623947.95

STANDARD DETAIL PLATES (A)	
CITY OF ROCHESTER	
NO.	DETAIL PLATE
1-03	STRUCTURE TYPES 3 AND 3A
1-07	MANHOLE WATERPROOFING
1-11	CASTING SCHEDULE
1-12	STRUCTURE ADJUSTING RINGS
3-01	TYPICAL SECTION ROADWAY
4-01	SERVICE CONNECTIONS STUBBED INTO BOULEVARD
4-02	STANDARD 4IN. RISER
6-04	HYDRANT BRANCH DETAIL
7-05	INLET PROTECTION
7-06	TEMPORARY ROCK CONSTRUCTION ENTRANCE

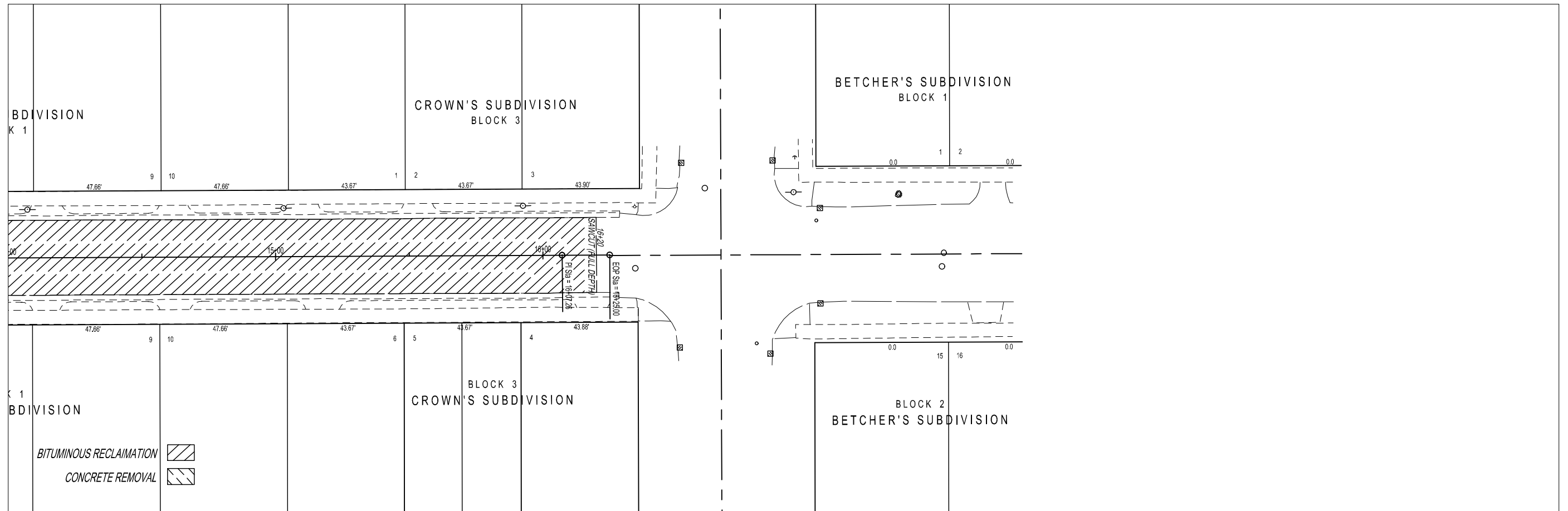
INPLACE SANITARY SEWER STRUCTURES (C)								
STATION-LOCATION	STRUCT TYPE	INPLACE CASTING EL.	REMOVE MH	INL EL	INL EL	INVEL	OUTL EL	OUTL EL
10+00-CL	MH	1003.28	X	994.89-N	994.96-E			
13+60.38-CL	MH	1005.34	X			996.42		
16+07.26-CL	MH	1010.25	X			1001.68		
TOTALS			3					

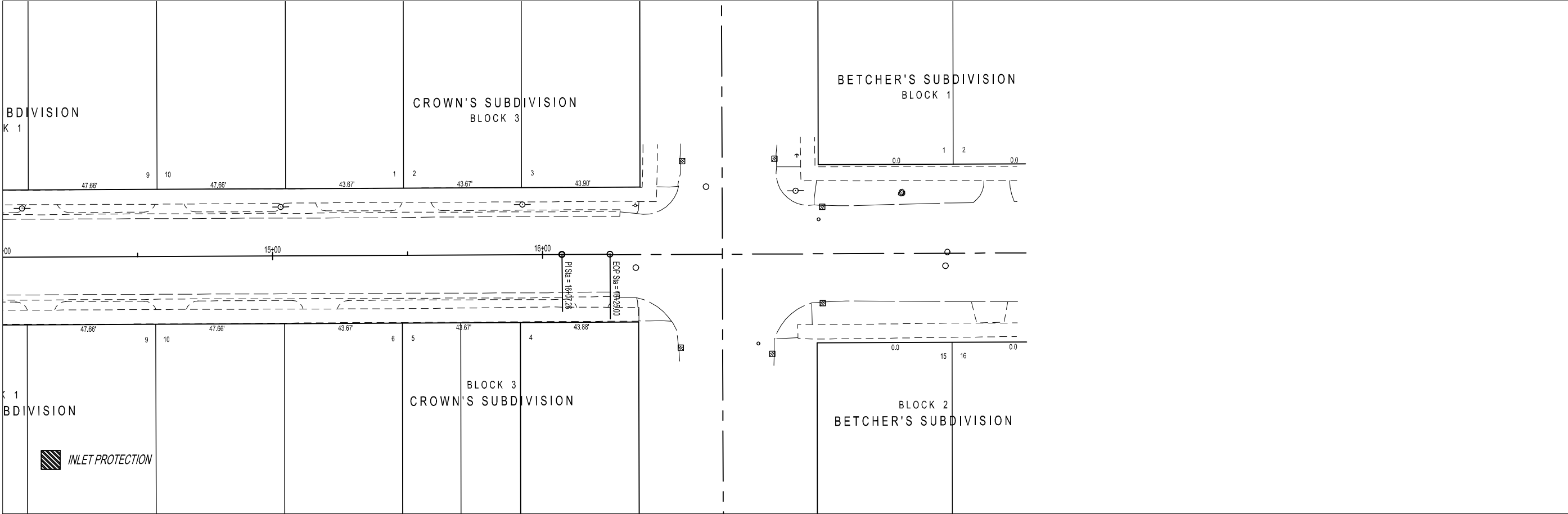
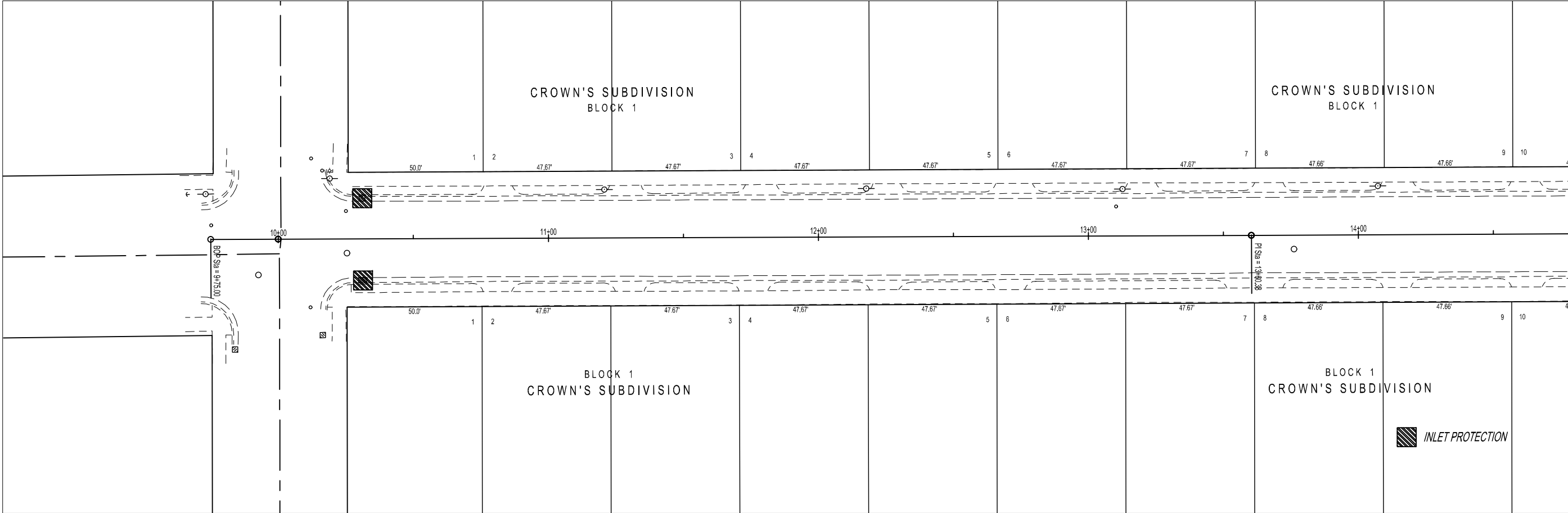
INPLACE STORM SEWER STRUCTURES (D)									
STATION-LOCATION	STRUCT TYPE	INPLACE CASTING EL.	ADJ MH	INL EL	INL EL	INL EL	INVEL	OUTL EL	REMARKS
9+83.30-40.04' RT	CB	1002.21							
9+92.56-13.24' RT	MH	1003.24	X	998.12-12"	997.35-30"	996.48-42"		995.95-48"	ADJUST TO FIN. GRADE
10+17.08-35.10' RT	CB	1002.33							
10+25.40-5.33' RT	MH	1002.9	X	997.70-21"	998.07-12"	998.03-12"		997.47-30"	ADJUST TO FIN. GRADE
10+30.57-15.81' LT	CB	1002.33						998.79	
10+31.22-16.28' RT	CB	1002.35						998.91	
13+76.14-5.21' RT	MH	1005.38	X				999.38		ADJUST TO FIN. GRADE
16+34.60-5.04' RT	MH	1010.44		1005.38-12"	1004.83-18"	1004.73-18"		1004.48-21"	

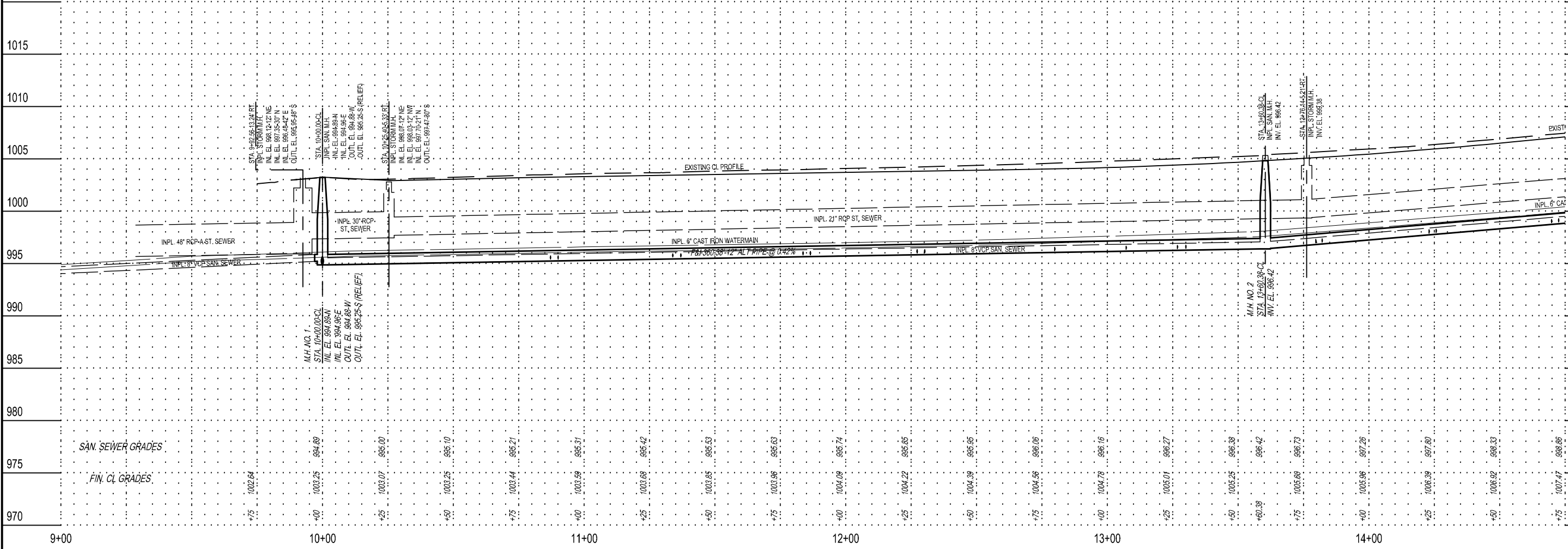
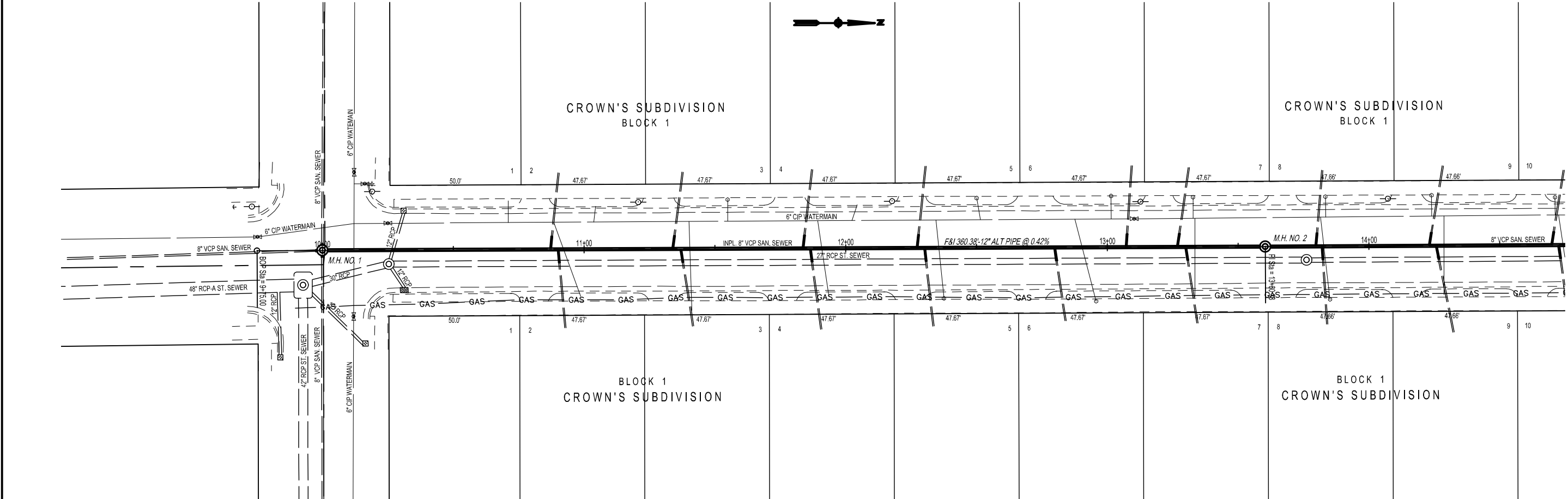
CONSTRUCT SANITARY SEWER STRUCTURES (G)									
NO.	STATION-LOCATION	TYPE 3 6'-10"	CAST. EL.	CAST. ASSEM.	C-INL EL	C-INL EL	C-OUTL EL	C-OUTL EL	C-INVEL
MH NO 1	10+00-CL	1	1003.25	1	994.89-N	994.96-E	994.88-W	995.25-S (RELIEF)	
MH NO 2	13+60.38-CL	1	1004.84	1					996.42
MH NO 3	16+07.26-CL	1	1010.18	1					1001.68
TOTALS		3							

INPLACE WATERMAIN FITTINGS (E)				
STATION-LOCATION	GATE VALVE	HYD	CURB BOX	SERV. SIZE
9+75.22-5.25' LT	X			
10+11.84-25.30' RT	X			
10+12.26-29.82' LT	X			
10+16.36-25.35' LT	X			
10+19.01-25.34' LT		X		
10+25.05-10.27' LT	X			
11+54.97-18.77' LT			X	3/4" COPPER
12+37.51-19.29' RT			X	3/4" COPPER
12+50.13-18.96' LT			X	3/4" COPPER
12+95.64-20.58' RT			X	3/4" COPPER
13+01.47-19.55' LT			X	3/4" COPPER
13+10.34-10.82' LT	X			
13+32.82-19.01' LT			X	3/4" COPPER
13+83.46-18.98' LT			X	3/4" COPPER
13+85.01-20.29' RT			X	3/4" COPPER
14+24.00-19.29' LT			X	3/4" COPPER
14+71.18-18.30' LT			X	3/4" COPPER
14+76.87-18.29' RT			X	3/4" COPPER
15+23.43-19.56' LT			X	3/4" COPPER
15+28.78-19.91' RT			X	3/4" COPPER
15+69.98-20.11' LT			X	3/4" COPPER
16+01.10-20.38' RT		X	X	3/4" COPPER
16+34.45-17.99' LT		X		

CONSTRUCT SANITARY SEWER PIPE (H)			
FROM	TO	PIPE SIZE (LIN. FT.) 12" ALT.	SLOPE (%) C.C.
MH NO 1	MH NO 2	360.38	0.42
MH NO 2	MH NO 3	246.88	2.13
TOTALS		607.26	







Revision comment:

Revised: ---
Created: ---

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Department of Public Works

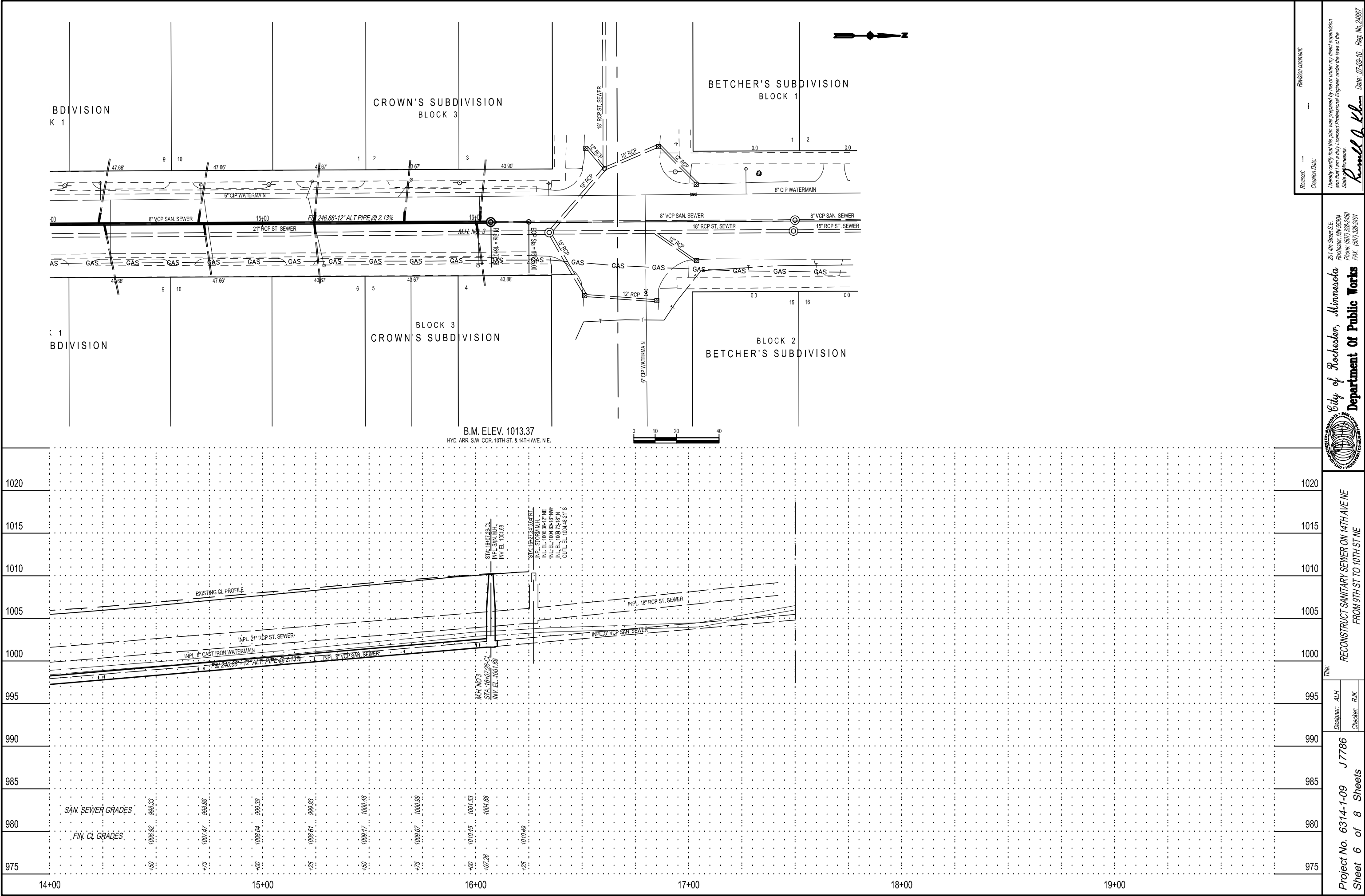
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Rochester, MN 55904
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Project No. 6314-1-09 J7786
Sheet 5 of 8 Sheets

Title:
RECONSTRUCT SANITARY SEWER ON 14TH AVE NE
FROM 9TH ST TO 10TH ST NE

Designer: ALH
Checker: RLK

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Russell J. Klen
Date: 07-09-10 Reg. No. 24667



Revision comment:

Revised
Creation Date:

City of Rochester, Minnesota
Department of Public Works

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Rochester, MN 55904
Phone: (507) 328-2400
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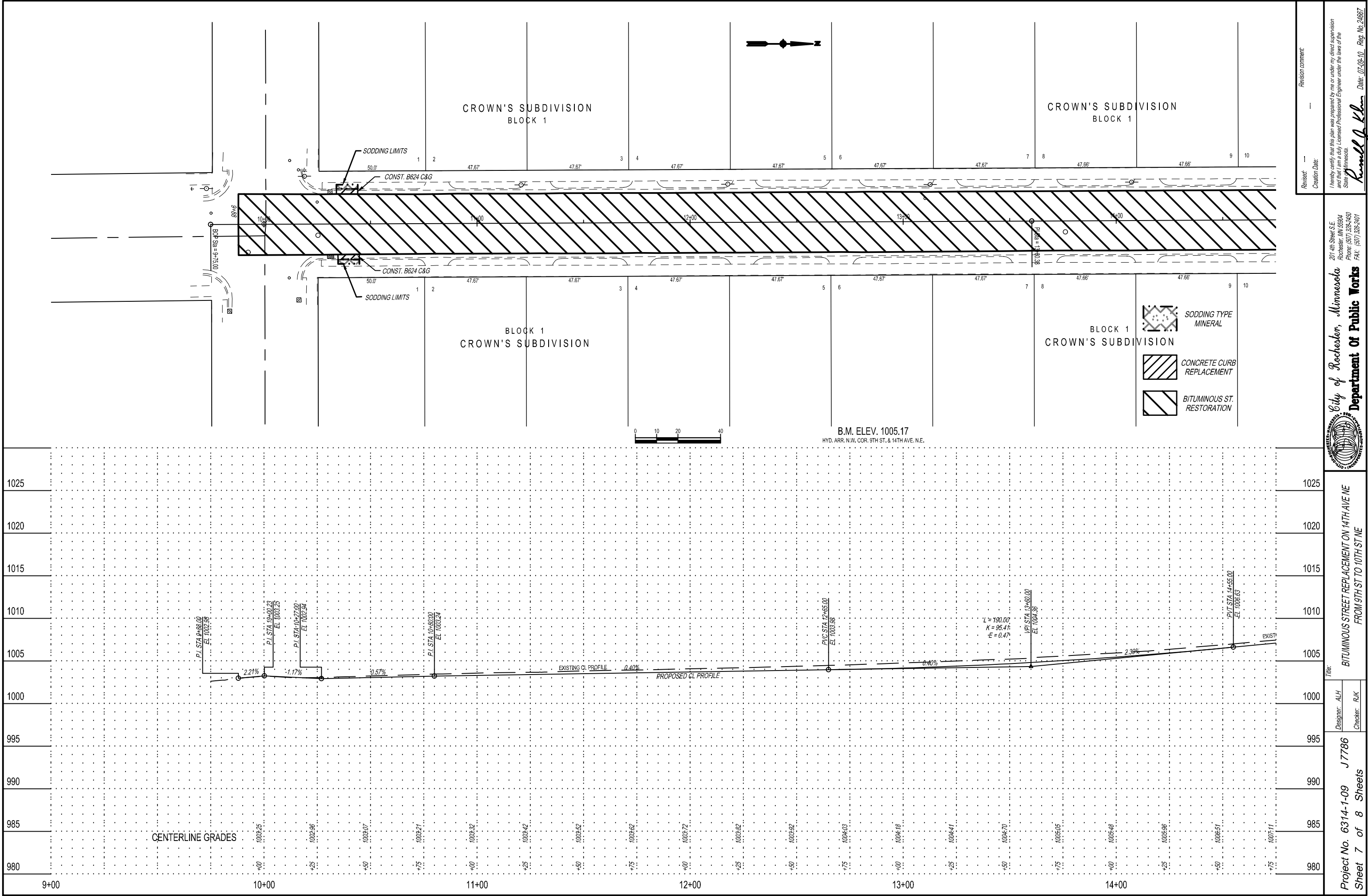
Project No. 6314-1-09
J7786
Sheet 6 of 8 Sheets

Reconstruct Sanitary Sewer on 14th Ave NE
from 9th St to 10th St NE

Design: ALH
Checker: RLK

Project No. 6314-1-09
J7786
Sheet 6 of 8 Sheets

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Russell J. Kline
Date: 07-09-10 Reg. No. 24667



Revision comment:

Revised: ---
Creation Date: ---

City of Rochester, Minnesota
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Rochester, MN 55904
Phone: (507) 328-2400
Fax: (507) 328-2401

Project No. 6314-1-09 J7786
Sheet 7 of 8 Sheets

Title:
BITUMINOUS STREET REPLACEMENT ON 14TH AVE NE
FROM 9TH ST TO 10TH ST NE

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Russell J. Klen
Date: 07-09-10 Reg. No. 24667

